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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------|------------------|
| 10/686,369 | 10/15/2003 | Craig C. Klocke | P06629US0-5195 | 6717 |
| 34082 | 7590 | 11/15/2007 | EXAMINER | |
| ZARLEY LAW FIRM P.L.C. CAPITAL SQUARE 400 LOCUST, SUITE 200 DES MOINES, IA 50309-2350 | | | WEINSTEIN, LEONARD J | |
| ART UNIT | | PAPER NUMBER | | |
| 3746 | | | | |
| MAIL DATE | | DELIVERY MODE | | |
| 11/15/2007 | | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

| | | |
|----------------------|-----------------|------------------|
| | Application No. | Applicant(s) |
| | 10/686,369 | KLOCKE, CRAIG C. |
| Examiner | Art Unit | |
| Leonard J. Weinstein | 3746 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 12 April 2007.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 7-9 and 14 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 7-9 and 14 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____

5) Notice of Informal Patent Application

6) Other: _____

DETAILED ACTION

1. This office action is in response to the amendment of April 12, 2007. In making the below rejections and/or objections the examiner has considered and addressed each of the applicant's arguments.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 7-9 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Horiuchi 4,960,365. Horiuchi teaches all the limitations as claimed for a method of controlling the angle of a swash plate 74 of a hydrostatic unit, as shown in figure 14, having steps including: (claim 7) generating an electric signal (V_f), as V_f is a product of (V_e) through operation of a feedback loop, based on a set point signal (V_o), receiving the electric signal (V_f), in a microprocessor 14, interpolating the information from the electric signal (V_f) using an algorithm contained in the microprocessor 14 (col. 13 ll. 48 – col. 14 ll. 2), sending an output signal (V_e') from the microprocessor 14, by way of elements 6', 19, and 10, to a pressure control, as defined by elements 8, 13, 15, 84, and 81 of 80 (col. 13 ll. 7-30), dithering the output signal (V_e'), via (V_d), and generating a dithered pressure from the pressure control, as defined by elements 8, 13, 15, 84, and element 81 of 80 (col. 13 ll. 7-30), that displaces the swash plate 74 (col. 14 ll. 47-56); (claim 8) the step of the method for controlling a swash plate including wherein the set point signal (V_o) is generated by measuring an operational parameter (col. 13 ll. 48-51); (claim

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9) the step of the method for controlling a swash plate wherein the operational parameter is the angle of the swashplate 74, as (V_f) is a product of (V_e) through a feedback loop by way of (V_{oq}) which defines the operating parameter of the swash plate 74 (col. 14 ll. 47-56); (claim 9) the step of the method for controlling a swash plate wherein pressure control, as defined by elements 8, 13, 15, 84, and 81 of 80 (col. 13 ll. 7-30), is a nozzle style pilot valve, element 84 of the control as discussed, with one boost spool 82.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 14 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Horiuchi 4,960,365 as evidenced by Takahashi et al. US 6,648,014. Horiuchi teaches all the limitations as discussed including a pressure control, as defined by elements 8, 13, 15, 84, and 81 of 80, including a pilot valve, with element 84 of the pressure control as discussed. Horiuchi does not explicitly teach a flapper style pilot valve, which is not expressly defined in the disclosure of the instant application. By applicant's own

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admission (pg. 4 ll. 28-32; pg. 3 ll. 1-2), a pressure control can be of any type including a flapper style however does not clearly set forth what a flapper nozzle style valve is and how it would work in conjunction with components of the instant invention as disclosed. Further Takahashi teaches that a flopper mechanism, elements 51, 52, and 54, can be comprised of a piston member 54 that is spring loaded, via elements 51 and 52, disposed within a chamber, as shown in figure 2. As evidenced by Takahashi the pilot valve 84 of Horiuchi can be considered a flapper nozzle style valve and it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a flapper style pilot valve to hydraulic control as it is well known in the art to use a flapper mechanism with a hydraulic control in order to use a pressurized fluid source to drive a spool (Takahashi – col. 1 ll. 25-27).

Response to Arguments

7. Applicant's arguments, see page 5-6, filed April 12, 2007, with respect to the rejection(s) of claim(s) 7-9 and 14 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Horiuchi 4,960,365 for claims 7-9 and 14 under 35 U.S.C. 102(b). Claim 14 is rejected in the alternative under 35 U.S.C. 103(a) as obvious over Horiuchi 4,960,365 as evidenced by Takahashi et al. 6,648,014.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is (571) 272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Karmer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


LJW
Devon Karmer
11/13/07